

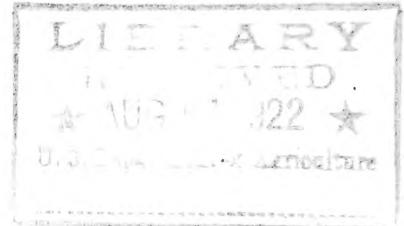
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MONTHLY LETTER OF THE BUREAU OF ENTOMOLOGY
UNITED STATES DEPARTMENT OF AGRICULTURE

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MESSAGE FROM A CARNEGIE STUDENT

Mr. R. Owen Wahl, Carnegie Student from South Africa, who spent the months from February to July in this country visiting field laboratories and experiment stations, in a letter to Doctor Howard written from Vancouver, B. C., July 21, on the eve of sailing for Australia, said: "Before leaving the continent, I would like to thank you, Doctor Quaintance, and all the host of entomologists I have met for their unfailing consideration and kindness to me. Always have I found the utmost hospitality and good fellowship, and no one spared any trouble to make my stay pleasant as well as profitable. If you have any means of conveying my sincere thanks to them I am sure you will do so. I am leaving the United States with great regret, but will always have the keenest interest in your wonderful country, and the thought of all the workers in entomology doing their bit will always be an inspiration to me."

BEE-CULTURE INVESTIGATIONS

E. F. Phillips, Apiculturist in Charge

The Maryland State Beekeepers' Association met for an afternoon field meeting at the Bee Culture Laboratory on July 29. A short program was arranged by the members of the staff and the visitors were shown about the laboratory. This is the fourth year that this association has arranged such a visit to the laboratory.

SOUTHERN FIELD CROP INSECT INVESTIGATIONS

J. L. Webb, Entomologist Acting in Charge

L. P. O'Dowd has been given a temporary appointment on funds allotted for Sugar-Cane Insect Investigations. He will determine the area infested by the new borer which has been found in sugar cane in southern Mississippi.

The following have been given appointments for summer work on boll weevil control work at the Cotton Insect Field Station, Tallulah, La.: A. J. Chapman, Alex Clark, J. R. Cole, R. C. Dancy, S. B. Hendricks, R. L. Hester, E. E. Holley, J. E. Humphries, J. W. Ingram, I. T. Jones, W. H. May, A. L. Monroe, Wm. D. Reed, Paul D. Sanders, J. T. Wilson, T. L. Wilkerson. L. P. Hodges and H. C. Young have been given probational appointments.

The following have been given summer appointments on tobacco insect control work at the Tobacco Insect Field Station, Clarksville, Tenn.: E. F. Haden, H. C. Plummer, M. L. MacQueen, T. P. Weakley, W. B. Weakley, and L. N. Judah.

Dr. Carroll G. Bull, W. C. Gideon, and J. A. Welch have been given temporary appointments on the malaria mosquito work which is being conducted at the Mound, La., Laboratory.

R. W. Moreland, J. W. Couch, and Rowland Cowart of the Tallulah Laboratory force have recently resigned.

FRUIT INSECT INVESTIGATIONS.

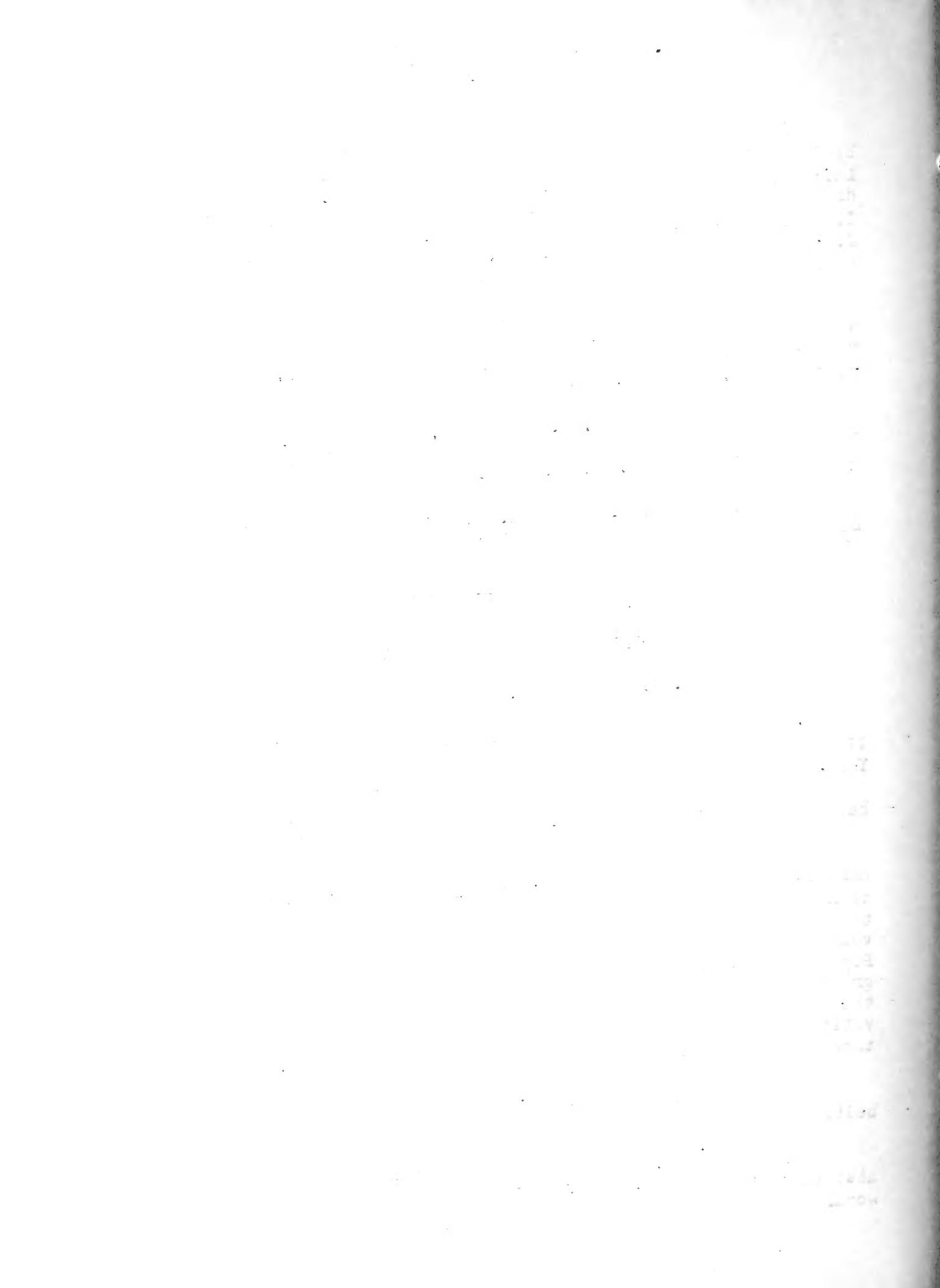
A. L. Quaintance, Entomologist in Charge

E. J. Newcomer reports that the bureau's efforts in importing codling moth parasites from the East for establishment in orchards around Yakima, Wash., under way for the past two or three years, have been successful, in the case of one species at least, Bassus carpopcapsae, which has been secured from band material collected last fall.

One of the best peach crops ever produced in Georgia has just been harvested. The progress made in overcoming the heavy curculio infestation has been very gratifying. All varieties through to the close of the Elbertas have been unusually free from curculio larvae. Careful investigations of commercial orchards treated according to the advice of Department and State specialists showed that curculio damage was not greater than an average of one wormy peach in each 5/8-bushel basket. In these orchards dropped fruit had been picked up and destroyed and cultivation for the destruction of pupae had been practiced in addition to very thorough spraying.

The San Jose scale appears to be on the increase in the Georgia peach belt.

Chester I. Bliss, of Columbia University, has been appointed field assistant at the Sandusky, Ohio, laboratory and will assist in grape insect work.



G. A. Runner, in charge of the grape insect work for the Bureau of Entomology at the Federal laboratory at Sandusky, Ohio, reports severe injury from grape leafhoppers in vineyard sections of New York, Ohio, and Michigan, and that large numbers of grape growers have commenced spraying operations for control. In Ohio and Michigan the grape-berry moth has caused more than the usual amount of damage to the grape clusters by feeding on the stems or buds during the blossoming period. At Lawton Mich., on June 8, Mr. Runner found cocoons of the grape-berry moth on the grape leaves. This shows an unusually early development of the larvae, as grapes were just out of bloom, and shows that early appearing larvae are able to complete fully their growth without entering the grape berries. At Paw Paw, Mich., bud clusters infested with the grape-blossom midge (Contarinia johnsoni Sling.) were observed on June 8. The insect had not been reported from that section previously.

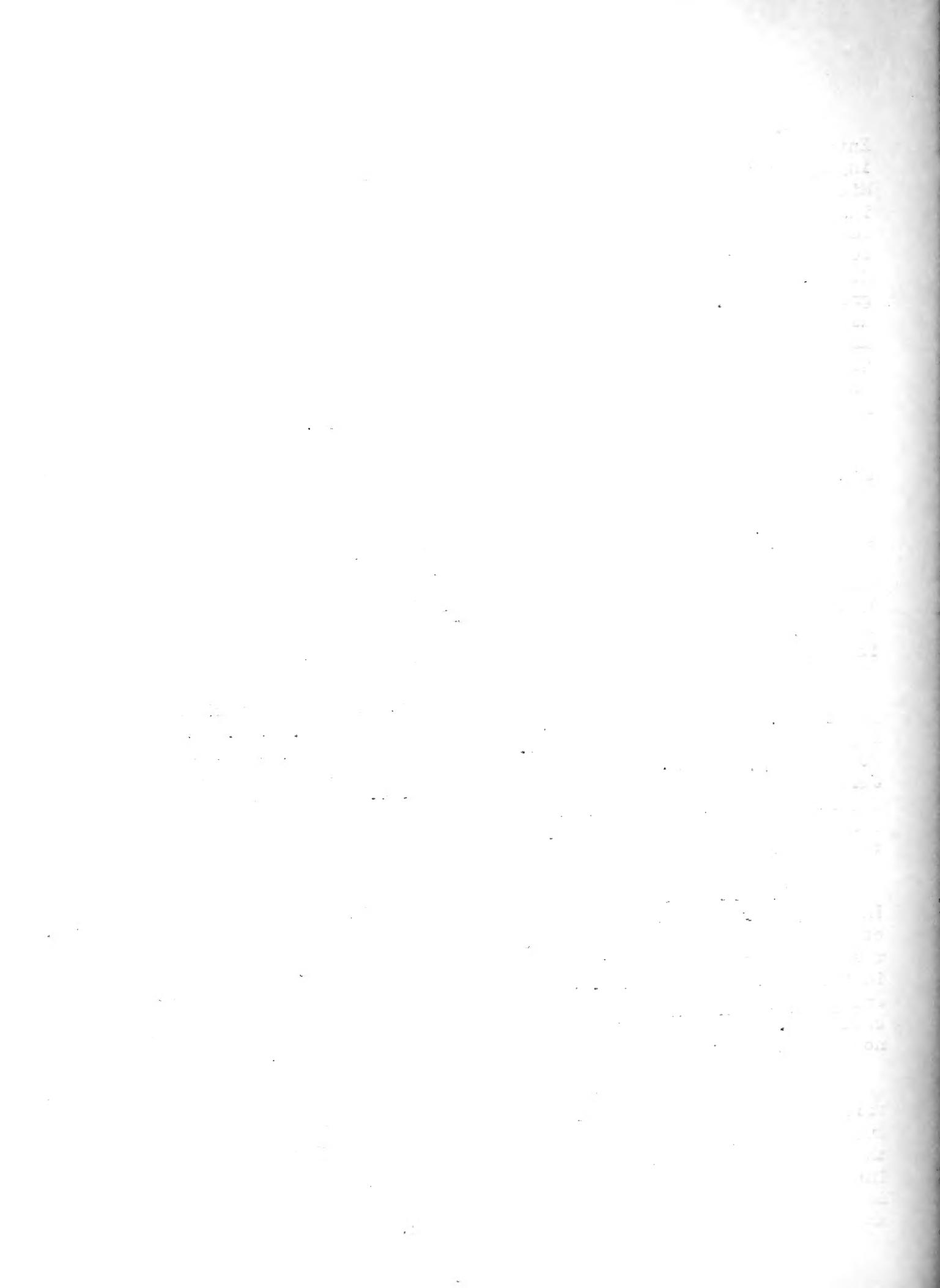
Dr. Guy C. Crampton, of the Department of Entomology at the Massachusetts Agricultural College, visited the Wallingford station July 7 and 8.

The Japanese beetle has been much more abundant during the present season than in any previous year and over a wider area. Serious damage has been caused by the immense numbers of the beetles to the foliage of many trees, especially fruit trees and certain varieties of shade trees. There has been important injury to early fruit, particularly early apples and early peaches. The height of the beetle season is at hand and a clear idea of the extent of heavy feeding can now be obtained.

Recent visitors at the Japanese Beetle laboratory include Dr. E. D. Ball, Dr. L. O. Howard, Dr. A. L. Quaintance, and Dr. C. L. Marlatt from the Department. Other visitors include Dr. T. J. Headlee, State Entomologist of New Jersey, and Mr. H. B. Weiss of the State Department of Agriculture, New Jersey, and Prof. F. Rasmussen and Prof. J. G. Sanders of the Pennsylvania Department of Agriculture. A committee of the New Jersey State board of agriculture also recently spent part of a day at the laboratory looking over the beetle situation.

The citrus black-fly, introduced into the Canal Zone from the West Indies, is rapidly spreading, according to Mr. James Zetek, who is in charge of the field station there. This pest is now well distributed for about 12 miles out from Panama City, all along the Canal Zone, and has been introduced in the interior at Aguadulce. Two entomogenous fungi, Aschersonia aleurodis and Aegerita wetberi, are following the black-fly but are not sufficient to check it. Agriculture is still in its infancy in Panama so that practically no control or restrictive measures are being taken against any pest.

Mr. Zetek also reports the papaya fruit fly very abundant and well distributed wherever papayas are grown. In some of the papaya groves the damage due to this species amounts to 90 per cent of the crop. In some parts of the interior of Panama it is impossible to grow papayas without having them infested, unless the very thick-fleshed varieties are grown. The picking and destroying of infested papayas, and allowing chickens to live in the grove, are the two most efficient control measures.



FOREST INSECT INVESTIGATIONS

A. D. Hopkins, Entomologist in Charge

The termite Coptotermes niger Snyder is causing serious damage to lead-covered cable at the locks of the Panama Canal. These termites work through the lead, often causing large openings, and then travel between the two wires of the Duplex cable. Since the space between these two wires is not ample, they eat away the insulation. Another termite, Nasutitermes ephratae Holmgren, is a very serious offender also; it does not care for lead but works havoc in rubber, cloth, and other insulation. An illustrated paper by Dr. T. E. Snyder and J. Zetek on these and other economic termites of the Canal Zone is almost completed.

TRUCK CROP INSECT INVESTIGATIONS.

F. H. Chittenden, Entomologist in Charge

J. E. Graf, entomologist in charge, field control, Mexican bean beetle, has just returned to Birmingham, Ala., after investigating the bean beetle in the Estancia Valley of New Mexico. He reports that the beetle has received a serious check owing to the shortage of moisture during the past winter and spring, which has occasioned a reduction in acreage from 90,000 to 20,000 acres in the Valley. Distribution after hibernation follows prevailing winds down the canyon, but owing to the scarcity of food plants, beetles are becoming more widely separated than usual. Flights of 1 to 2 miles, several of which occur a day, are not uncommon. Since the average net return from an acre of beans is about \$15, expensive control measures can not be instituted.

J. E. Dudley, assistant entomologist, Madison, Wis., is continuing control experiments against the pea aphid on cannery peas in northern Wisconsin.

LIBRARY

Mabel Colcord, Librarian

New Books

Alluaud, Ch., and Jeannel, R. Voyage en Afrique orientale 1911-1912.
Limoges, 1911-1912.

- V. 1. Liste des stations. Vermes 1-2, Grottes, Plancton, Poissons.
- V. 2. Pseudoneuropteres 1-2 (Termitidae, Odonata)
- V. 3. Hymenopteres 1-4.
- V. 4. Apterygogeniens 1, Thysanoures, Strepsiptera, Neuropteres 1.
- V. 5. Diptera 1-5.
- V. 6. Hemiptera 1-4.
- V. 7. Lepidoptera 1-2.

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- V. 8. Crustacea 1-3, Archnida 1-4, Myriopoda 1-3.
V. 9. Orthoptera 1-2.
V. 10. Coleoptera 1-16.

Annali della Regia Scuola Superiore di agricoltura in Portici, ser. 2, v. 15.
Portici, 1918-1919.

Chase, Ruth. The length of life of the larva of the wax moth, Galleria mellonella L., in its different stadia. Trans. Wis. Acad. Sci., v. 20, p. 263-267, fold. tab. February, 1922.

Parker, T. J., and Haswell, W. A. A test-book of zoology... 3d ed. 2 v., illus. (part colored.) London, Macmillan and co., limited, 1921.

Peirson, H. B. Control of the white pine weevil by forest management. 42 p., illus., incl. map, diagr. (Harvard forest. Bulletin no. 5,) Petersham, Mass., Harvard forest, 1922. Bibliography of economic references: p. 40-42.

Rousseau, Ernest. Les larves et nymphes aquatiques des insectes d'Europe (morphologie, biologie, systematique). v. 1 (967 p.) illus. En collaboration avec J. A. Lestage et H. Schouteden.) Bruxelles, Office de publicite, Anc. etabli. J. Lebegue & Cie, 1921. Principaux travaux à consulter, p. 961-964.

Rudolfs, Willem. Chemo tropism of mosquitoes. 23 p. (New Jersey Agr. Expt. Station Bul. 367.) New Brunswick, N. J., March, 1922.

Samson, G. G. Bees for pleasure and profit... 5th ed., again rev. and enl., 122 p., illus. (Lockwood's garden manuals.) London, C. Lockwood and son, 1921.

Stellwaag, F. Die schmarotzerwespen (schlupfwespen) als parasiten. 100 p., illus. (Monographie zur angewandten entomologie. Beihefte zur Zeitschrift für angewandte entomologie...nr. 6 (beiheft 2 zu bd. vii.) Berlin, P. Parey. 1921.
"Verzeichnis von untersuchungen über schmarotzerwespen," p. 92-100.

Welch, P. S. The respiratory mechanism in certain aquatic Lepidoptera. American Micros. Soc. Trans., v. 41, no. 1, p. 29-50 (39-50 are plates), tabs., Jan., 1922. Literature cited, p. 47.

